

What is claimed is:

1. A reciprocating slat conveyor, comprising:

a pair of laterally spaced apart, first and second support members, each having an upper portion;

5 at least one bearing supported on and by first support member;

at least one bearing supported on and by the second support member;

each said bearing having an upper bearing surface and a lower bearing surface;

10 a longitudinal conveyor slat having a central portion disposed generally between the support members and opposite side portions projecting laterally outwardly from the central portion, one said side portion having a top wall in contact with the upper bearing surface of the bearing on the first support member, and a bottom member confronting the lower bearing surface of the same bearing;

15 the other side portion having a top wall in contact with the upper bearing surface of the bearing on the second support member, and a bottom member confronting the lower bearing surface of the same bearings; and

20 wherein the reciprocating slat moves back and forth endwise, on said bearings.

2. The reciprocating slat conveyor of claim 1, further comprising a third support member laterally spaced from the second support member in the direction opposite the first support member, wherein the second and third support members include and support a fixed conveyor slat that extends between the second and third support members.

3. The reciprocating slat conveyor of claim 2, wherein the fixed conveyor slat has first and second side portions, said first side portion is supported on and by the upper portion of the second support member and the second side portion is supported on and by the upper portion of the third support member.

4. The reciprocating slat conveyor of claim 3, wherein the second bearing has an upper portion that extends over the first side portion of the fixed conveyor slat, and said upper portion includes the upper bearing surface for the second bearing.

5. The reciprocating slat conveyor of claim 4, comprising a third bearing supported on and by said third support member, said third bearing having an upper portion that rest on the second side portion of the fixed conveyor slat and includes an upper bearing surface.

6. The reciprocating slat conveyor of claim 1, wherein the bottom wall of the conveyor slat as a central portion that is flanked by first and second side portions, wherein the first side portion is below and confronts the lower bearing surface of the first bearing, and the second side portion is positioned below and confronts the lower bearing surface of the second bearing.

7. The reciprocating slat conveyor of claim 6, wherein the first and second side portions of the bottom wall are in the nature of leaf springs and are in contact with the lower bearing surfaces of the first and second bearings.

8. The reciprocating slat conveyor of claim 6, wherein the central portion of the conveyor slat includes a channel member having side flanges and an interconnecting bottom web that is connected to a central portion of the bottom wall.

9. A reciprocating slat conveyor, comprising a transverse drive beam;

at least one longitudinal conveyor slat connected to the transverse drive beam, said conveyor slat including a top wall;
a channel member having a top wall, side walls depending from the top wall, and bottom flanges extending inwardly from the side walls, said top wall, said side walls and said bottom

flanges defining a space that is below the top wall, between the side walls and above the bottom flanges;

10 a clamp member in said space having edge portions that are above the bottom flanges of the channel member; and

15 a fastener connecting the clamp member to the transverse drive beam, with the edge portions of the clamp member making contact with the bottom flanges of the channel member, wherein the bottom flanges of the channel member are clamped by and between the clamp member and the transverse drive beam.

10. The reciprocating slat conveyor from claim 1, when the portions of the clamp member and the transverse drive beam between which the bottom flanges of the channel member are received include complementary recesses and projections, wherein each projection pushes a portion of a bottom flange into a complementary recess.

11. A reciprocating slat conveyor comprising a plurality of laterally spaced apart movable slats and a plurality of laterally spaced apart fixed slats that are between the movable slats, said movable slats having a forward position and a rearward position;

5 said conveyor including a rear end portion that includes an apron that slopes downwardly and rearwardly;

 a door at the rear end of the apron;

10 said rear position of the movable slats being closer to the rear end of the apron than to the front end of the apron;

 said forward position of the movable salts being closer to the front end of the apron than it is to the rear rend of the apron; and

15 wherein rearward movement of the movable conveyor slats will deposit a material on the movable slats from the movable slat, into a region on the slopping apron between it and the door.

12. The reciprocating slat conveyor of claim 11, wherein the fixed slats have opposite side portions, and bearings are supported on and by the side portions of the fixed slats, and said movable slats have side portions of the fixed slats, and
5 said movable slats have side portions that contact the bearings and slide on the bearings.

13. The reciprocating slat conveyor of claim 12, wherein the bearings have lower surfaces and the movable slats have bottom members that include portions that are below and confront the lower surfaces of the bearings.

14. The reciprocating slat conveyor of claim 13, wherein the side portions of the bottom members are in the nature of leaf springs that are spring biased against the lower surfaces of the bearings.